

Title (en)  
Crystallisation assisted membrane separation process

Title (de)  
Kristallisierungsunterstütztes Membrantrennverfahren

Title (fr)  
Procédé de séparation de membrane assistée de cristallisation

Publication  
**EP 2671845 A1 20131211 (EN)**

Application  
**EP 12170700 A 20120604**

Priority  
EP 12170700 A 20120604

Abstract (en)  
The invention is directed to a process for separating a compound from an aqueous feed stream wherein said compound is dissolved. The process of the invention comprises - adding a crystallisation agent to said feed stream, thereby causing at least part of said first compound to crystallise, resulting in a mixture of crystals and a liquid, - separating at least part of the crystals from the liquid, leaving a supernatant, - subjecting at least part of the supernatant to a membrane separation process, producing a concentrate; wherein the crystallisation agent comprises a second compound with a higher solubility in water than the first compound.

IPC 8 full level  
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**B01D 2311/04 + B01D 2311/12 + B01D 2311/26**

Citation (applicant)  

- WO 2004096404 A1 20041111 - AKZO NOBEL NV [NL], et al
- WO 0072947 A1 20001207 - TNO [NL], et al
- NL 2012050854 W 20121205
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Citation (search report)  

- [X] WO 2004096404 A1 20041111 - AKZO NOBEL NV [NL], et al
- [A] DE 881190 C 19530629 - ICI LTD

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CN110734168A; US11046598B1

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AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
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**EP 12170700 A 20120604**; EP 13732646 A 20130604; ES 13732646 T 20130604; IL 23604714 A 20141203; NL 2013050395 W 20130604